Volume 165 1986

Contents

Letters to the Editor

SO_2 and SO in circumstellar envelopes
Guilloteau, S., Lucas, R., Nguyen-Q-Rieu, Omont, A. L1

Observations of the galactic disc from $l=-150°$ to $l=82°$ in the submillimeter range
Caux, E., Serra, G. L5

First image of the circumstellar envelope of the red supergiant μ Cep in the Na I λ 5890 Å line
Mauron, N., Cailloux, M., Tilloles, P., Le fèvre, O. L9

Optical interferometric measurements of γ Cassiopeiae's envelope in the Hα line
Thom, C., Granes, P., Vakili, F. L13

Cosmology

Equilibria and instabilities of polytropes within homogeneous background matter
Umemura, M., Ikeuchi, S. 1

A general solution for the evolution of adiabatic perturbations in a baryonic Universe
Voglis, N. 10

Extragalactic astronomy

The H I content of lenticular and early-type galaxies: a comparison between field and Virgo cluster samples
Chamaraux, P., Balkowski, C., Fontanelli, P. 15

QSO emission line profiles from Keplerian cloud ensembles
Bradley, S.E., Puetter, R.C. 31

The spectral index–flux density relation at 408 MHz and the cosmological evolution of extragalactic radio sources
Kapahi, V.K., Kulkarni, V.K. 39

H I synthesis observations of two low surface brightness dwarf galaxies in Virgo
Skillman, E.D., Bothun, G.D. 45

Two epoch VLBI observations of a sample of low frequency variable sources
Padrielli, L., Romney, J.D., Bartel, N., Fanti, R., Ficarra, A., Mantovani, F., Matveyenko, L., Nicolson, G.D., Weiler, K.W. 53

(RN) Star formation in spiral galaxies
Rengarajan, T.N., Verma, R.P. 300

Galactic structure and dynamics

Relaxation and dynamical friction in non-integrable stellar systems
Pfenniger, D. 74

Formation, structure and evolution of stars

Magellanic cloud star clusters: the problems of age determination, metallicity – age relationship and AGB star luminosity function
Chiosi, C., Bertelli, G., Bressan, A., Nasi, E. 84

The evolution of a single and a binary helium star of 2.5 $M_\odot$ up to neon ignition
Habets, G.M.H.J. 95

Rotation in T Tauri stars. I. Observations and immediate analysis
Bouvier, J., Bertout, C., Benz, W., Mayor, M. 110

Magnetic loops in accretion disk coronae
Burm, H. 120

Erratum: Four-colour photometry of eclipsing binaries. XXIV. Apsidal motion of QX Carinae, ζ Phoenicis and NO Puppis
Giménez, A., Clausen, J.V., Jensen, K.S. 306

Stellar atmospheres

Non-resonance lines of neutral calcium in the spectra of the α Centauri binary system
Smith, G., Edvardsson, B., Frisk, U. 126

Rotational modulation and flares on RS CVn and BY Dra-type stars. I. Photometry and spot models for BY Dra, AU Mic, AR Lac, II Peg and V 711 Tau (=HR 1099)
Rodonò, M., Cutispoto, G., Pazzani, V., Catalano, S., Byrne, P.B., Doyle, J.G., Butler, C.J., Andrews, A.D., Blanco, C., Marilli, E., Linsky, J.L., Scaltriti, F., Busso, M., Cellino, A., Hopkins, J.L., Okazaki, A., Hayashi, S.S., Zeilik, M., Helston, R., Henson, G., Smith, P., Simon, T. 135

Displaced narrow absorption components in the spectra of mass-losing OB stars: indications of corotating interaction regions?
Mullan, D.J. 157

Fe II emission lines in the wings of Ca II H and K. I. Solar Fe II λ3969.4 line
Watanabe, T., Steenbock, W. 163

The iron abundance of Vega
Gigas, D. 170

Nucleosynthesis of the light metals in the Galaxy: a study of sodium enrichment
François, P. 183

Diffuse matter in space (including HII regions and planetary nebulae)

UV observations of the nucleus of M31 with the ESA Photon Counting Detector (PDC)
Nieto, J.-L., Macchetto, F.D., Perryman, M.A.C., di Serego Alighieri, S., Lelièvre, G. 189

H_2O maser emission from HH6 and other star-forming regions
Henkel, C., Haschick, A.D., Güsten, R. 197

VLA observations of NH_3 and HC_7N in the Egg Nebula (CRL 2688): the shell kinematics
Nguyen-Q-Rieu, Winnberg, A., Bujarrabal, V. 204

The Sun

A new mechanism for stellar radio bursts: the fully relativistic electron maser
Louarn, P., Le Quéau, D., Roux, A. 211

Asymptotic properties of low degree solar gravity modes
Provost, J., Berthomieu, G. 218

The role of metric and decimetric radio emission in the understanding of solar flares
Simnelt, G.M., Benz, A.O. 227

The inverse Compton interpretation of fast-time structures in solar microwave and hard X-ray bursts
McClements, K.G., Brown, J.C. 235

The solar system

Solar wind control of Jupiter's decametric radio emission
Barrow, C.H., Desch, M.D., Genova, F. 244

Celestial mechanics and astrometry

Absolute azimuth determination
Teixeira, R., Benevides-Soares, P. 251

Physical and chemical processes

Propagation of relativistic plasma waves: global nonlinear aspects
Robnik, M., Fritz, K.D., Schrüfer, E. 254

Electron-impact shifts of ion lines: modified semiempirical approach
Dimitrijević, M.S., Kršljanin, V. 269

Instruments, data processing, and computational methods

The evolution of atmospheric extinction at La Silla
Rufener, F. 275

A high resolution heterodyne spectrometer from 100 μm to 1 000 μm and the detection of CO ($J=7-6$), CO ($J=6-5$) and ^{13}CO ($J=3-2$)
Roeser, H.P., Wattenbach, R., Durwen, E.J., Schultz, G.V. 287

Abstracts of articles which have been published in A. & A. Suppl. Ser. 65, No. 2

Observed radii and structural parameters of star clusters in the SMC. III
Kontizas, M., Theodossiou, E., Kontizas, E. 307

Numerical calculations on viscous jets
Nepveu, M. 307

Miscellaneous observations of active galactic nuclei
Véron-Cetty, M.-P., Véron, P. 307

Internal motions in thirty-two genuine planetary nebulae and in a misclassified object
Sabbadin, F., Strafella, F., Bianchini, A. 308

A 5-GHz survey of radio sources
Altschuler, D.R. 308

Spectral classification of bright stars in SMC clusters. I
Dapergolas, A., Kontizas, E., Kontizas, M. 308

Misclassified planetary nebulae
Sabbadin, F. 309

A *VBLUW* photometric survey of the Pleiades cluster
van Leeuwen, F., Alphenaar, P., Brand, J. 309

On the relation of Markarian galaxies with Zwicky clusters. I. Data
Petrosian, A.R., Turatto, M. 309

Model atmospheres and synthetic spectra for white dwarfs with chemically stratified atmospheres
Jordan, S., Koester, D. 310

Comparison of the Potsdam PZT catalogue with four NPZT catalogues
Sadzakov, S., Dacic, M., Fomin, V.A. 310

Compact ephemerides of the main satellites of Jupiter, Saturn and Uranus
Arlot, J.E., Chapront, J., Ruatti, C., Vu, D.T. 310

UBV photometry of stars whose positions are accurately known. III
Oja, T. 311

Orbits of 20 visual binaries
Heintz, W.D. 311

New photometric observations of the β CMa star δ Cet
Sareyan, J.P., Gonzalez-Bedolla, S., Garrido, R., Delgado, A., Chapellier, E. 311